

(FILE 'HOME' ENTERED AT 17:07:04 ON 26 JUL 1999)

FILE 'MEDLINE, EMBASE, CAPLUS, BIOSIS' ENTERED AT 17:09:07 ON 26 JUL 1999

L1           5 S SALMON CALCITONIN PRECURSOR  
L2           3 DUP REM L1 (2 DUPLICATES REMOVED)  
L3           2 S CALCITONIN GENE RELATED PEPTIDE PRECURSOR  
L4           2 DUP REM L3 (0 DUPLICATES REMOVED)  
L5           64814 S PARATHYROID HORMONE  
L6           0 S L5 AND (C-TERMINAL GLYCINE)  
L7           396 S L5 AND (VECTOR OR PLASMID)  
L8           197 DUP REM L7 (199 DUPLICATES REMOVED)  
L9           1 S L8 AND TAC  
L10          0 S L8 AND (DUAL PROMOTER)

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 1999 ACS  
AN 1998:712326 CAPLUS  
DN 129:311704  
TI Direct expression of peptides into culture media using genetically engineered host cells  
IN Mehta, Nozar M.; Ray, Martha V. L.; Meenan, Christopher P.; Consalvo, Angelo P.  
PA Unigene Laboratories Inc., USA  
SO PCT Int. Appl., 97 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9846722	A1	19981022	WO 98-US7723	19980415
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9871279	A1	19981111	AU 98-71279	19980415
PRAI	US 97-43700		19970416		
	WO 98-US7723		19980415		

AB Expression systems are disclosed for the direct expression of peptide products into the culture media where genetically engineered host cells are grown. High yield was achieved with novel vectors, a special selection of hosts, and/or fermn. processes which include careful control of cell growth rate, and use of an inducer during the growth phase. Special vectors are provided which include control regions having multiple promoters linked operably with coding regions encoding a signal peptide upstream from a coding region encoding the peptide of interest. Multiple transcription cassettes are also used to increase yield. The prodn. of amidated peptides using the expression systems is also disclosed.

#### Methods

for purifying the produced peptides are presented. One example presented in this invention deals with the prodn. of **salmon calcitonin precursor**.

L2 ANSWER 2 OF 3 MEDLINE  
AN 1999166252 MEDLINE  
DN 99166252  
TI Secretory expression of salmon calcitonin in Streptomyces lividans.  
AU Hong B; Li Y; Li S Y; Jiang R  
CS Institute of Medicinal Biotechnology the Chinese Academy of Medical Sciences, Beijing.  
SO I CHUAN HSUEH PAO. ACTA GENETICA SINICA, (1998) 25 (4) 287-93.  
Journal code: A05. ISSN: 0379-4172.  
CY China  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Chinese  
EM 199905  
EW 19990503  
AB A gene coding for **salmon calcitonin precursor**

DOES NOT  
BEAT PRIORITY  
DATE OF 4/16/97

(sCT-Gly) was amplified from salmon genomic DNA by Polymerase Chain Reaction (PCR) and fused to the expression and secretion signals of melC1 amplified by PCR. The fusion gene was cloned into the Streptomyces vector pIJ680 and expressed under the control of aminoglycoside phosphotransferase gene (aph) promoter. Streptomyces lividans TK54 transformed with the expression plasmid (pMS680) secreted biologically active sCT-Gly into the culture medium which was confirmed by Enzyme Immunoassay (EIA) and bioassay. Production of sCT-Gly by the recombinant strain in YEME medium reached a maximum of 100 micrograms/L culture at about 96 h. The recombinant sCT-Gly had almost the same HPLC retention time as the standard sCT obtained from Sigma.

L2 ANSWER 3 OF 3 BIOSIS COPYRIGHT 1999 BIOSIS  
AN 1993:244172 BIOSIS  
DN PREV199344117372  
TI Direct expression of a 33-amino acid **salmon calcitonin**  
~~precursor~~ in **Escherichia coli**.  
AU Ray, Martha V. L. (1); Meenan, Christopher; Consalvo, Angelo P.; Alavi, Mahasti; Sturmer, Amy M.; Mehta, Nozer M.  
CS (1) Unigene Lab. Inc., 110 Little Falls Road, Fairfield, NJ 07004 USA  
SO Abstracts of Papers American Chemical Society, (1993) Vol. 205, No. 1-2,  
pp. BIOT 9.  
Meeting Info.: 205th ACS (American Chemical Society) National Meeting  
Denver, Colorado, USA March 28-April 2, 1993  
ISSN: 0065-7727.  
DT Conference  
LA English

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 1999 ACS  
AN 1988:88748 CAPLUS  
DN 108:88748  
TI Sequence and expression of the chicken calcitonin gene  
AU Minvielle, S.; Cressent, M.; Delehaye, M. C.; Segond, N.; Milhaud, G.;  
Jullienne, A.; Moukhtar, M. S.; Lasmoles, F.  
CS CHU St. Antoine, Paris, 75571, Fr.  
SO FEBS Lett. (1987), 223(1), 63-8  
CODEN: FEBLAL; ISSN: 0014-5793  
DT Journal  
LA English  
AB The avian calcitonin gene was isolated and sequenced; two mRNAs are expressed by tissue-specific alternate splicing. The peptides encoded by the mRNAs are the protein precursors of either calcitonin or calcitonin gene-related peptide (CGRP). Calcitonin is expressed predominantly in ultimobranchial bodies and CGRP in brain.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 1999 ACS  
AN 1985:18676 CAPLUS  
DN 102:18676  
TI Calcitonin/calcitonin gene-related peptide transcription unit: tissue-specific expression involves selective use of alternative polyadenylation sites  
AU Amara, Susan G.; Evans, Ronald M.; Rosenfeld, Michael G.  
CS Eukaryotic Regul. Biol. Program, Univ. California, San Diego, La Jolla, CA, 92093, USA  
SO Mol. Cell. Biol. (1984), 4(10), 2151-60  
CODEN: MCEBD4; ISSN: 0270-7306  
DT Journal  
LA English  
AB Different 3'-coding exons in the rat calcitonin [9007-12-9] gene are used to generate distinct mRNAs encoding either the hormone calcitonin in thyroidal C-cells or a neuropeptide referred to as calcitonin gene-related peptide [83652-28-2] in neuronal tissue, indicating the RNA processing regulation is a strategy used in tissue-specific regulation of gene expression in the brain. Although the 2 mRNAs use the same transcriptional initiation site and have identical 5' terminal sequences, their 3' termini are distinct. The polyadenylation sites for calcitonin and calcitonin gene-related peptide mRNAs are located at the end of the exons 4 and 6, resp. Termination of transcription after the calcitonin exon does not dictate the prodn. of calcitonin mRNA, since transcription proceeds through both calcitonin and calcitonin gene-related peptide exons, irresp. of which mRNA is ultimately produced. In isolated nuclei, both polyadenylation sites appear to be utilized; however, the proximal (calcitonin) site is preferentially used in nuclei from tissues producing calcitonin mRNA. Apparently, the mechanism that dictates the prodn. of each mRNA involves the selective use of alternative polyadenylation sites.

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	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
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AB Expression systems are disclosed for the direct expression of peptide products into the culture media where genetically engineered host cells are grown. High yield was achieved with novel **vectors**, a special selection of hosts, and/or ferment processes which include careful control of cell growth rate, and use of an inducer during the growth phase. Special **vectors** are provided which include control regions having multiple promoters linked operably with coding regions encoding a signal peptide upstream from a coding region encoding the peptide of interest. Multiple transcription cassettes are also used to increase yield. The prodn. of amidated peptides using the expression systems is also disclosed. Methods for purifying the produced peptides are presented. One example presented in this invention deals with the prodn. of salmon calcitonin precursor.